



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/814,526	03/31/2004	Ashish Kumar Jain	P71465US00GP	6904
23378	7590	02/22/2006	EXAMINER	
BRADLEY ARANT ROSE & WHITE, LLP INTELLECTUAL PROPERTY DEPARTMENT-NWJ 1819 FIFTH AVENUE NORTH BIRMINGHAM, AL 35203-2104				SMITH, RICHARD A
		ART UNIT		PAPER NUMBER
		2859		

DATE MAILED: 02/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.	JAIN ET AL.
Examiner	Art Unit 2859

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) Responsive to communication(s) filed on 06 December 2005.
- 2a) This action is **FINAL**.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-28 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) Notice of References Cited (PTO-892)  
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.

- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) Notice of Informal Patent Application (PTO-152)  
6) Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

2. Claims 1-28 finally are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. 4,274,204 to Self in view of U.S. 5,214,855 to Gibbs and US 2,588,433 to Twamley. Self discloses with respect to claims 1 and 7, a plurality of entry determining elements being movable secured together by a means for securing when the plural elements are the standard and non-standard holding patterns shown on one side of the card 42, the landing pattern is shown on the other side of the card 42, and the elements on card 42 being movably secured together with respect to slotted frame 12 and its two parts 14 and 16.

Self discloses with respect to claim 12, the entry determining element comprising a line bisecting the element and comprising the reference element and the line dividing the determining element into two entry determining sectors when the longitudinal axis of the landing pattern which aligns with 94, 80, 60, 72, 90, 80, 62, 72, and 94 of figure 1 is taken as the line.

Self discloses each entry determining element being divided into a plurality of entry determining sectors (shown by the hatching patterns of figure 3), each determining element having a reference element (100 and 102 of figure 3, and the longitudinal axis of the landing pattern which aligns with 94, 80, 60, 72, 90, 80, 62, 72, 94 of figure 1), entry plan designators (the unmarked straight arrows in each sector in combination with the corresponding unmarked loop which address teardrop, parallel, and direct) which provides a visual representation, the environment consisting of a holding pattern and a runway traffic pattern, the direction head associated with the holding pattern in the outbound radial and with the runway traffic pattern in the runway, the entry determining elements comprise a set of two bisecting lines, one of said lines being the reference element (100 and 102), the entry designator sectors having a visually distinguishable feature which is selected from the listed group (in this case hatching). Furthermore, Self discloses that other patterns (holding, landing etc.) can be placed on placards as needed.

Self does not disclose each element as claimed being labeled, e.g. each entry determining sector being associated with an entry determining label and the label informing the user of the advised entry procedure, each entry plan designator comprising a visually distinguishable feature and wherein the feature is of line color, configuration or combination thereof (Self shows partial

distinguishable features with respect to the teardrop, parallel or direct), the entry determining elements being of a shape selected from a circle, oval, square, rectangle, etc. as listed, the shape of each entry determining element being the same and being different, the entry determining element having a surface texture selected from smooth, rough or ridged and wherein they are the same and different.

Nor does Self disclose the system being associated with an appropriate navigational instrument forming a part of an aircraft, the plurality of entry determining elements (12 and 14) being rotatably movably secured together by a means for securing, the proper entry determining sector and its entry determining label being displayed at the bottom of the element based on the initial orientation thereby informing a user of the proper entry procedure for the entry environment based.

Gibbs discloses a navigational system comprising a plurality of entry determining elements, the system being associated with an appropriate navigational instrument forming a part of an aircraft (discussed throughout, however in picking one see column 10 lines 45-52), a plurality of entry determining elements (12 and 14) being rotatably movably secured together by a means for securing, each entry determining element being divided into a plurality of entry determining sectors, each sector being associated with an entry determining label (as shown on 12 and column 9, lines 13-21), that the different elements can be coded to distinguish them from the other elements (column 8, lines 14-31), Furthermore, Gibbs discloses the overlaid displays can be implemented by computer on a video display and that the displays can be defined, overlaid and rotatably manipulated relative to one another to solve the instrument flight problems

wherein images are constructed of layered or overlaid slices which can be rotated relative to one another (column 14 lines 20-31).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system, taught by Self, to include the system being associated with an appropriate navigational instrument forming a part of an aircraft, the plurality of entry determining elements being rotatably movably secured together by a means for securing, to include each sector being associated with an entry determining label, and to include visually distinguishable features, as taught by Gibbs, in order to be able to align the elements correctly based on current navigational conditions, to provide a more compact device and to prevent the elements from accidentally separating from each other, to inform the user of what each feature is, and to help prevent confusion when visualizing and interpreting the system.

With respect to the proper entry determining sector and its entry determining label being displayed at the bottom of the element based on the initial orientation thereby informing a user of the proper entry procedure for the entry environment based: As noted above, Gibbs discloses the overlaid displays can be implemented by computer on a video display and that the displays can be defined, overlaid and rotatably manipulated relative to one another to solve the instrument flight problems wherein images are constructed of layered or overlaid slices which can be rotated relative to one another (column 14 lines 20-31). Furthermore, Twamley discloses that a rotatable overlay (20) can be applied to a navigational instrument display in order to help the pilot remain on course (column 1, lines 46-51). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to employ a similar technique of overlaying and

rotating a transparency, as suggested by Gibbs and as suggested by Twamley, to the system, taught by Self, in order to simplify the device by elimination of the compass rose components and in order to help the pilot remain on course more easily by direct application of the system.

With respect to the elements being displayed at the bottom: Since the navigational displays are absolutely oriented to the aircraft and have relative orientation to the earth, then it would be obvious to one of ordinary skill in the art that this limitation would be met by the alignment of the system to the display in order to properly display the course for the pilot to follow.

With respect to the printed matter which includes each element as claimed being labeled, e.g. each entry determining sector being associated with an entry determining label and the label informing the user of the advised entry procedure, each entry plan designator comprising a visually distinguishable feature and wherein the feature is of line color, configuration or combination thereof, the entry determining elements being of a shape selected from a circle, oval, square, rectangle, etc. as listed, the shape of each entry determining element being the same and being different, the entry determining element having a surface texture selected from smooth, rough or ridged and wherein they are the same and different: It would have been obvious to one having ordinary skill in the art at the time the invention was made to include labeling and to include lines, colors, shapes and textures and to make them the same and/or different as claimed since (a) it would only depend on the intended use of the assembly and the desired information to be displayed, and (b) Self and Gibbs already disclose labeling using letters, hatching, dashed/solid lines, and various arrows in order to clearly convey to the user the

necessary information so that the user can readily follow the appropriate determining element with its sectors, reference elements, and entry plan designators without becoming confused.

*Response to Arguments*

3. Applicant's arguments with respect to claims 1-28 have been considered and are persuasive with respect to Self as applied in the previous Office action, but are moot in view of the combination applied in the new ground(s) of rejection.

*Conclusion*

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

5. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure. The prior art cited in PTO-892 and not mentioned above disclose related systems.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to R. Alexander Smith whose telephone number is 571-272-2251. The examiner can normally be reached on Monday through Friday from 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego F. Gutierrez can be reached on 571-272-2245. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



R. Alexander Smith  
Primary Examiner  
Technology Center 2800

RAS  
February 17, 2006